/16 cont./

*532 with only colored crayon. The type of reproduction thus seems to depend in part on the material. With a pencil, only a narrow line can be drawn, the filling in of larger surfaces is difficult, and thus only line and outline drawings are produced. The crayon leaves a wide mark, the filling in of surfaces is easy to accomplish, and added to this there is the color attraction, so that on the whole filled-in figures are drawn with it.

Distribution according to age is as follows: line and outline drawings are made by boys and men, filled-in figures by boys, youths, and men. No development, however, can be shown; the participation of the men in both of the first types is, in fact, fairly high.

The filling in of the figures extends over the whole body and is uniform everywhere. Characteristic filling-in is lacking; this higher stage has thus not yet been reached. We find hints of it in the outline drawing of the ray (Fig. 130 /see p. 35 /). The figures are further defined by the outlines and added characteristic features.

*532 151 Special developmental stages, which play so large a role in the pri[illegible]ve drawings of primitive peoples and children, are almost totally lacking here. For example, the confusion of side and front views (the mixed profile) in facial representation is not found, probably because the faces are always colored in. Mixed body postures, however, occur in line drawings and filled-in figures three times altogether (Fig. 108d /see p. 32 /; Plate VI, Fig. 140 a and b /see p. 52 /).

/17/ The omission of parts of the body is very rare: the neck is in part missing on human beings in simple line drawings (Fig. 107 /see p. 32 /). Filled-in figures of mammals at one time have two legs (Plate VI, Fig. 154 /see p. 52 /) and at another time three (Plate VI, Fig. 153c /see p. 52 /), with the third going up from the back.

There are no superfluous parts of the body; invisible parts are likewise not drawn in; only on plants are the roots sometimes represented.

*532 /17 cont./
151

The case of parts of the body being reproduced apart from the body occurs only once: in Fig. 169 /see p. 53 / of the ray (on Plate VII), the two eyes stand in front of the head.

So-called X-ray pictures are lacking. It is true that in the case of the birds the animal is first drawn with the wings, but then everything is filled in. The center line of the fish (Fig. 129 /see p.35 /) does not represent the spine, but rather a symmetry line, with the help of which the figures are produced, but which usually disappears again because of being painted over. The two center lines of the crocodile in Fig. 131 /see p. 35 / represent the dorsal ridge.

The side from which the figures are reproduced is always the most characteristic one.

Human beings are represented from the front in simple line drawing. Only one transition to the half profile occurs (Fig. 108d /see p. 32 /). Filled-in figures are reproduced from the front, in half and in full profile.

Animals are represented considerably better than human beings. The reproduction of animals in line and outline drawings is rare; the majority are represented as filled-in figures, the birds only in this fashion. Animals are drawn almost throughout from the side, only occasional ones, such as rays, crocodiles, and some fish, are interpreted from above.

From all this emerges the fact that the Karajá have reached a fairly high stage artistically.

*532 α) Simple Line Drawings

Human figures are all drawn from the front. The neck is in part missing, so that the head, which is represented as a button, sits directly on the body stroke, if it is not missing altogether. The arms and legs are put on separately, and, indeed, in the following four ways: both stick out diagonally from the body (Figs. 106, 108a /see p. 32/); the arms stick out at right

/19 cont./

*532 534 of the string, hurls the disk around himself so that the string twists together, pulls on the string, and lets it go loose again, then the disk will start rotating and produce a whirring noise. It is drawn by the Indians as a circle through which the string runs as a horizontal line.

*532 821 There follow representations of stars and constellations. Fig. 135 /see p. 35/ portrays the moon with the lunar mountains conceived as a toad. The small circles in Fig. 136a /see p. 35/ signify the Pleiades, which are interpreted as parakeets. I should like to add, although it does not strictly belong here, the further representation of two constellations: the jaguar leaping at the ostrich from the rear (Fig. 136 b and c /see p. 35/). The principal stars are shown by dots, the two frontmost stars of the ostrich correspond to α and β Centauri.

*532 Finally there is still the representation of an event to be added here, a sketch which, along with the representation of the stag hunt on the gourd (Fig. 104 /see p. 26/), stands quite alone among the Karajá drawings. From the lagoon the track of the tortoise leads over the sand to the spot where the eggs are laid. One egg is drawn in the nest (Fig. 137 /see p. 35/).

γ) Filled-in figures

represent by far the majority of all the drawings present. As already noted above, they are executed only in colored crayon, from which it is to be concluded that the broad stroke and surface covering thus made possible, together with the possibility of color effects, has brought about the transition from line and outline drawing to the surface figure. As we shall see later with regard [151] to the ornamentation, surface perception and just such representation is in general peculiar to the Karajá Indians. The drawings were executed in such a way that first of all a center line was drawn, with reference to this the outlines, and only then was the whole surface drawn in. The filling-in is simple and takes no account of characteristic coloring and drawing of the bodies to be represented.

/19 cont./

532 Human figures are well represented.

/20/ The en face representations, of which Fig. 138a*) /see p. 52/ is me, Fig. 138b*) /see p. 52/ my companion Adam, are good. Above all the reproduction of the feet, pointed forward and obliquely downward, is noteworthy. Fig. 139 /see p. 52/ is the self-portrait of an Indian with a double-peaked, Brazilian soldier's cap.

Fig. 140 a and b /see p. 52/ are reproduced in mixed profile [Fig. 140a*) is me, Fig. 140b*) is Adam], both drawn by the same artist. The bodies are en face, beards and feet portrayed in profile, and in fact in b) the feet are pointed to one side, in a) outward to both sides. The beards are put on sideways, "because otherwise there is no space"; a) wears a straw hat. The fashioning of the hands and feet is noteworthy. The hands are drawn as disks with the right number of fingers appended. The feet in b) are reproduced as lines with attached claw-like toes (four on each), in a) as disks, corresponding to the hands, with five lines attached on each one. /Figs. 144-145 and 148 appear here./ 1 The arrangement of both drawings is interesting. The artist drew a) starting from the feet and going toward the head, b) on the contrary starting from the head and going toward the feet.

Profile drawings are found in Figs. 141-143 /see p. 52/. The arms are both attached to one side of the body. The reproduction of the knees by thickenings is noteworthy in Figs. 141 and 142. The feet in all three are indicated by strokes added sideways. Figs. 142 and 143 each have three fingers twice, Fig. 141 has four and three fingers. Fig. 141*) portrays a youth with a braid, Fig. 142*) a woman with long hair. Fig. 143 is supposed to be me; the trunk-like nose is striking. It is remarkable that head, nose, and arms are drawn in red, the rest of the body in blue, so that the parts of the body burned red by the sun show the natural color. In general it is to be noted that as a result of the filling in of the faces the eyes, mouth, and nose are not reproduced. Details are always drawn in the right number, or too few, [151] as in the case of the fingers and toes, but never too many. Invisible parts of the body are never represented.

1 [see p. 38--Analyst]

/23 cont./

53/ In some patterns I was successful in separating pattern and back-
[128] ground from each other; others still await satisfactory investiga-
tion.

53/ These patterns are made in the following manner. On
285 baskets, fans, etc., they are produced simply through different,
diagonal plaiting of the leaf pinnae. For plaiting around some-
thing with yellow cane and black embira, the black embira is
plaited horizontally in spirals through the strips of cane hanging
53/ down vertically. Carved decorations are made with the knife;
322 the latter is then held almost vertically to the surface to be
carved, and /24/ in this way small pieces of the upper layer are
chipped off broadside with the point. Finer and deeper lines are
carved out naturally. In poker work a splinter of cane is used
as the cautery, which is made to glow on an adjacent block of
wood and then quickly pressed on the spot concerned. This is,
[42] of course, very slow work, which is practiced almost exclusively
517 by the male sex, apparently only for fun.

53/ The Indians always drew the patterns in the sketchbook on
[153] their own initiative. When they had barely drawn some figures,
they would already go over to the patterns. Many refused to draw
figures altogether, but just treated themselves to making patterns.
53/ Now it was extremely interesting to observe how the people ar-
151 ranged the patterns. As an example I shall take the one in Fig.
199 (Plate X /see p. 56/). First of all the space was divided up
by four vertical lines according to exact calculation. The Indians
sitting nearby already knew which decoration the artist wanted to
draw, without the latter saying anything. Then each new line to
be drawn was discussed in detail beforehand, criticized afterwards.
Thus, the sketch was put together as a common task. During this
the lines, once the people were completely clear about direction
53/ and length, were drawn with a quick sure stroke. It should further
151 be noted that the Indians had observed how I wrote my remarks
153 about artist and pattern on the edge of the page, and now on
their own initiative they left a narrow margin free on one side, as
I ascertained through questions, so that I could write on it. They

/24 cont./

53/ first bordered off this part; then they divided up the rest of the
●/51/ space. Of course, not all of them calculated so skillfully;
153 there were some among them who were very clumsy, managed no straight line, and never quite succeeded with complicated patterns. (Plate XI /see p.57 /, Fig. 202b.)

53/ About the arrangement of the patterns, it is to be noted that on baskets and fans they are restricted to the middle zone, but on plaiting around something they extend over the whole plaiting. Half-gourds are almost always completely carved, usually with four vertical zones set off, which show patterns differing in part. The edge is set off by special patterns on only a very few examples. Whole gourds bear carved patterns, each according to its purpose; gourds for oil are decorated only on the upper part around the opening, gourds for feathers over the whole surface, rattles likewise, but in a vertical zone arrangement or in individual vertical stripes. Ear rods are decorated only on the front part. On half-gourds poker-work covers the edge, vertical or horizontal zones, or the whole curved upper surface; on whole gourds, the upper part, the whole surface, or two symmetrically positioned zones.

531 1. Patterns borrowed from the plaiting technique
285 (Plates VII-XI) 1

we know from all the plaited objects and objects with plaiting around them, then as they are transferred in carving to gourd utensils and gourd rattles, and finally as sketchbook drawings. The meaning of the patterns was obtained only with difficulty. Either the Indians called them hõdjũdjũ = plaiting, or they gave names for which a translation could not be obtained. Only for a few could they give the Brazilian term.

1. Horizontal zigzag lines; dũlẽhãlõkõ, the bat. As a carved pattern on gourds it was also called õdãbũlã (cf. Ehrenreich, "Beiträge," Fig. 11b). Found in plaiting, on combs (Fig. 184a

1 [vee pp. 53-57 -- Analyst]

/340 cont./

821 Shooting stars are called lẽšiwĩũlån. They were explained to me by a half-civilized Karajá as change of place by the stars, whereas, according to Ehrenreich ("Beiträge," p. 45), they represent the tossed-out fishing gear with the bait. The Indians knew that in November many shooting stars appear.

823 [804] Geographical. The Karajá are very familiar with the course of the Araguaya. They calculate distances on the river according to steep banks and according to how often one must cross the river going upstream; greater distances according to overnight camps. They have special proper names for tributaries, lakes, steep banks, and mountains (see the word list /untranslated; see the foreign text, p. 456/).

On either side of the Araguaya their knowledge of the country extends somewhat beyond the boundaries of their territory. Thus, they are familiar with the waterfall of the Rio Tapirapé, which lies several hours above the present boundary. About the Furo /Port. furo, natural connection between two bodies of water/ (east arm of Bananal Island) they know that it dries up during the dry season, so that not even Indian boats can navigate it. A small furo is said to run across Bananal Island from the east branch to the west branch of the Araguaya.

[149] They have endurance on land marches; they walk very rapidly. In order to find water on the barren campo, they hold their faces in the direction of the wind: if the wind is cool, it comes from a place where there is water; if it is hot, there is not likely to be any water in this direction. Before digging for water at a place, they pound a stick deep into the ground; if it is moist, they start digging. On the way, they pay attention to all tracks, and they are masters at drawing conclusions from them. When traveling down the Tapirapé, I reached the sandbank where we had had our first camp on the Tapirapé, my Karajá immediately recognized from the footprints precisely which of their relatives had been here, approximately how long /341/ they had stayed, where they had their boats lying, and about how long ago they had departed, all conjectures which later proved to come very close to the truth.

823 151